

Mr N J J F MacPhail
Mas des Sables
Grandes Rocques
Castel, Guernsey
GY5 7XQ
Tel: 01481 253323

The Office Of Utility Regulation
Suite B1 & B2, Hirzel Court
St Peter Port
Guernsey
GY1 2NH

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Dear Sir

Buy-Back Rate Review – Document No OUR0817

I declare an interest; as I am the patent and trade mark owner of the Ecostor Thermal Storage Combi Boiler that is successfully marketing locally. I also have filed patents on the utilisation of micro generated electricity as heat. That Ecostor thermal storage combi boilers were specified for the Flagship Vega and Royal Terrace apartments against stiff overseas competition I think speaks loudly of this invention's importance. Other large, significant, low carbon housing projects are proposing to use Ecostors because they are simple in operation and run on cheap off peak electricity. This is an energy source that will become increasingly important as nuclear and tidal inputs to reduce our CO2 foot print come on stream. Utilisation of off peak electricity aids load matching and load levelling and enables more efficient, therefore greener, use of generating plant. Ecostors also have the ability to accept and store intermittent energy input from almost any source for later use. For example solar thermal, photovoltaic, and wind generation can be utilized. Ecostors can also provide the thermal buffer necessary to make CHP more efficient and facilitate the defrost cycle for air source heat pumps. This speaks still louder on their importance for CO2 reduction.

With over 40 years experience in the heating business I feel I have some relevant experience to base my following observations on.

The storage of energy as heat in Ecostors has, I believe, great relevance to small scale electrical generation and, especially, to its "buy-back" by Guernsey Electricity. At present, to enable micro generation buy-back, the electricity generated has to be conditioned/transformed/regulated/metered and accounted for, all at considerable cost to the micro generation system owner or, more likely, to the tax payer and/or Guernsey Electricity's customers. I believe such buy-back is likely to be viewed by many people as a subsidy to the, usually rich, people who can afford such micro generation systems.

I am sure that no electricity generating utility really wants the costs involved in the metering, accounting and administration of buy-back for the tiny amount of energy that domestic micro generation can produce. Indeed one can foresee circumstances when, at night for example, tidal input could exceed consumer demand and yet the electricity utility could still be forced to pay for micro generation input that they do not want and cannot use.

In my opinion it would make far more sense for the comparatively small amount of electricity generated by micro generation to be stored within the householder's property as heat in a thermal store or cylinder for the householder's own domestic heating or hot water supply use. With this arrangement there is no need for any outside involvement at all apart from the

use by the householder of competent, qualified, installers. Put simply, why not leave the householders to utilise and reap the full rewards of their micro generation themselves?

Bonuses of “self utilisation” to owners of micro generators are that they will benefit from the full retail value of their micro generated electricity, converted into self usable heat, and save themselves the considerable cost of the electronic conditioning/ transforming equipment. They only need, instead, to add for a cheap immersion heater and its thermostats in order to utilize their self generated electricity. The electricity company/its customers/taxpayers are saved the cost of metering/accounting/administering and the Office of Utility Regulation can further save taxpayers the cost of monitoring and regulating micro generation buy back.

In view of the points raised above regarding costs involved in buy-back and the provision and installation of export meters, I believe *the present buy-back scheme should be discontinued* and not extended. I can see no reason that any buy-back should be entertained at all except, perhaps, in larger scale usable “alternative” electricity production. *The installation of micro generation units should by all means be encouraged but such encouragement should be directed to the promotion of self utilisation of the energy generated* by such micro generation systems in domestic thermal storage devices. Better understanding, of the ability of micro generated electricity to be stored as heat in thermal storage devices like the Ecocostor, by the OUR and the Energy Policy Group is needed. It would be hoped that other governments will also quickly learn this cost/tax/hassle saving innovation.

Turning now to the discussion document: Its subject, for everyone not directly involved in the energy/energy saving business, is difficult enough. Your discussion document in its 57 pages has gone into considerable detail in an attempt to make the subject more accessible to interested parties. However, it has somewhat fallen short of this educational objective by inexplicably including large amounts of information on the function of air source and ground source heat pumps. These two devices can offer considerable savings in both running costs and the production of CO₂ when compared with some heating systems. However, as they do not produce any electricity they have no relevance to your discussion document. Indeed, their inclusion will probably have served only to confuse those not versed in the subject. I believe that *the irrelevance of the heat pumps to this discussion should be made clear*.

Referring now to section 7. and especially Figure 7.1 on page 34.

There are large differences between anthropogenic (man made) and total CO₂ emissions. According to the United Nations Environment Programme’s data “*Natural sources of CO₂ are more than twenty times greater than sources due to human activity*”. It is thus vital when expressing percentages of CO₂ production that clear distinction be made between total CO₂ production and anthropogenic CO₂ production. If, because of a lack of explanation, anthropogenic CO₂ production percentages are mistaken by decision makers as total CO₂ production percentages, they could be given the impression that humans are responsible for producing far more CO₂ than we actually are. It also can make it seem that spending vast sums of taxpayers’ money to achieve footling changes in our CO₂ production can have a significant difference to total CO₂ production. Global warming is too important a matter to have people chasing down the wrong paths due to misdirection, intended or not.

Yours faithfully



cc: Guernsey Electricity
Energy Policy Group